REMARKS

Claim rejections under 35 U.S.C. § 112, 2nd Paragraph

Claims 16 and 30 are amended so that the claims have proper antecedent basis.

Claim rejections under 35 U.S.C. § 102(e)

The Office Action rejects claims 1-5, 17, 23-26, 29-34, 46, 56-58 and 60 under 35 U.S.C. § 102(b) as being anticipated by Yang et al (the '562 patent). Yang is asserted to disclose a system that teaches a cross-flow system for separating particles according to ion mobility.

Applicant respectfully traverses the rejection of the claims in light of Yang. Yang teaches essentially the exact same system as taught by Guevremont (the '627 patent). Figure 2 of the '627 patent is essentially identical to figure 1 of Yang. Yang and Guevremont both teach a well-known type of ion mobility system. The four arrows showing the direction of travel of the four ions in the drift chamber 16 in figure 1 of Yang show that the ions are traveling from one electrode 18 to another electrode 26. This is distinct contrast to the direction of travel of the ions in the present invention.

As shown in figure 2 of the present invention, the "ion flow" is shown by Gas Flow F_1 and Gas Flow F_2. Thus, the "ion flow" is substantially perpendicular to the electric field E between the two electrodes shown and the Gas Flow F_3 and Gas Flow F_4. Applicant has amended independent claims 1 and 30 to state that the first fluid flow and the electric fields are perpendicular to the direction of travel of the ions and other particles that can be sent through the system and detected. Also note that claims 15 and 44 have been amended to more distinctly claim the subject matter of the invention. Specifically,

the second fluid flow is defined as the direction of travel of the ions and other particles through the system.

Put another way, the electrodes in Yang would have to be on the walls of the chamber 16 for Yang to teach the same invention. Please note that in figure 1 of the present invention, the electrodes are on the walls of the cylinders.

A final observation is that the "cross-flow" refers to the direction of the first fluid flow with respect to the direction of the travel of the ions and other particles. The first fluid flow is perpendicular to the second fluid flow. No where does Yang teach two fluid flows that are perpendicular to each other. Thus Yang cannot anticipate nor make the present invention obvious.

Note that claims 1, 15, 30 and 44 are all amended to more distinctly claim the subject matter of the invention, and not in light of the prior art.

Claim rejections under 35 U.S.C. § 103

The Office Action rejects claims 27 and 59 under 35 U.S.C. § 103(a) as being unpatentable over Yang et al.

Applicant respectfully traverses the rejection of the claims 27 and 59 for the reason that these claims are now arguably shown to be dependent upon allowable base claims.

Allowable Subject Matter

The Office Action states that claims 6-16, 18-22, 28, 35-45, 47-55, and 61-66 are only objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Applicant respectfully declines to amend the claims at this time. Applicant has shown that Yang fails to anticipate or make the present invention obvious.

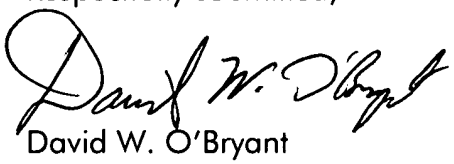
Conclusion

In light of the statements above, Applicant respectfully requests issuance of claims 1-66. If any impediment to the allowance of these claims remains after entry of this Amendment, and such impediment could be alleviated during a telephone interview, the examiner is invited to call David W. O'Bryant at (801) 478-0071 so that such matters may be resolved as expeditiously as possible.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 50-0881.

DATED this 10th day of October, 2006.

Respectfully submitted,



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